APPLICATION FOR U.S. PATENT

COMPOSITION FOR TIRE SIDEWALLS AND OTHER RUBBER CONSTRUCTIONS

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The present application is a Divisional Application of U.S.S.N. 09/071,105, filed on May 1, 1998, which claims priority to Provisional Applications U.S.S.N. 60/045,632 filed May 5, 1997, and U.S.S.N. 60/062,591 filed October 20, 1997

FIELD OF THE INVENTION

The present invention relates to compositions for making tire sidewalls and other rubber constructions which exhibit improved ozone resistance and fatigue crack propagation resistance, as well as a reduction in staining and discoloration. The composition comprises a blend of halogenated copolymer of isoolefin and para-alkylstyrene of relatively high aromatic comonomer content and relatively low halogen content with general purpose rubbers (GPR) such as butadiene rubber (BR), natural rubber (NR) and/or isoprene rubber (IR). The tire sidewall may comprise a single layer or a veneer construction wherein an outer layer comprises the blend of the halogenated copolymer with one or more general purpose rubbers, and an inner layer can comprise a blend of general purpose rubbers.

BACKGROUND OF THE INVENTION

Rubber tires, such as pneumatic tires, include many components, such as, for example, sidewalls. Sidewalls are continuously subjected to distortion under normal road operating conditions. The sidewalls are subjected to extensive continuous flexing and can crack under such conditions. In addition to flex cracking, sidewalls are also subjected to atmospheric chemical action such as ozone attack. The overall effect is that the sidewalls may erode and degrade. The sidewall may even separate from the tire carcass during use, leading to tire failure.